VRANA, B.

Welding in our automobile production

p. 63 (Automobil) Vol. 1, no. 2, Feb, 1957 Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, Jan. 1958

VRANA, B.

"Tractors at the 28th International Exhibition of Agricultural Machinery in Paris."

"Some ways for reaching the world level of farm machinery in respect to weight and material."

p. 161 & 166 (Zemedelske Stroje) Vol. 2, no. 7, July 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

VRANA, B.

Welders' suggestions for improvement.

p. 433 (Strojirenska Vyroba) Vol. 5, no. 9, Sept. 1957, Praha, Czechoslovakia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (SEAI) LC, VOL. 7, NO. 1, JAN. 1958

VRANA, B.

"Contribution to the discussion of M. Benes' article."

p. 296 (Zvaranie) Vol. 6, no. 10, Oct. 1957
Prague, Czechoslovakia

SD: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

VRANA, Bohumir

Inflammations of the biliary tract in infancy. Cesk. pediat. 16 no.7/8: 629-633 Jl-Ag '61.

1. Detske oddeleni OUNZ v Ceskem Tesine, primar MUDr. Boh. Vrana.

(CHOLANGITIS in inf & child)
(CHOLECYSTITIS in inf & child)
(PEDIATRICS diseases)

VRANA, B.

PHASE I BOOK EXPLOITATION SOV/5975

International Institute of Welding

XII kongress Mezhdunarodnogo instituta svarki, 29 iyunya - 5 iyulya 1959 v g. Opatii (Twelfth Annual Assembly of the International Institute of Welding, Opatija, June 29 - July 5, 1959) Moscow, Mashgiz, 1961. 350 p. 3000 copies printed.

Sponsoring Agency: Natsional'nyy komitet SSSR po svarke.

Ed. (Title page): G. A. Maslov, Docent; Translated from English, French, and Serbo-Croatian by N. S. Aborenkova, K. N. Belyayev, E. P. Bogacheva, L. A. Borisova, K. V. Zvegintseva, V. S. Minavichev, and M. M. Shelechnik; Managing Ed. for Literature on the Hot-Working of Metals: S. Ya. Golovin, Engineer.

PURPOSE: This collection of articles is intended for welding specialists and the technical personnel of various production and repair shops.

Card 1/

Twelfth Annual Assembly (Cont.)

COVERAGE: The collection contains abridged reports presented and discussed at the Twelfth Annual Assembly of the International Institute of Welding. Reports deal with problems of welding and related processes used in repair work, repair techniques, and the problems arising in connection with the nature of the base and filler materials. Examples of repairing various parts are given, and the organization of repair operations in workshops and under field conditions is discussed. Economic aspects of welding and related processes as used in repair work are analyzed. No personalities are mentioned. There are no references.

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Genkin, I. Z., and A. F. Zolotarskiy (USSR). Increasing the Strength and Extending the Service Life of Welded Rails and Frogs 172

Vegrzhin, Zh. (Poland). Alloying Fluxes for Restoring Parts by Submerged Arc Welding 182

Chikara, M. (Yugoslavia). Thermite Welding in Restoring Rails; Certain Characteristics Obtained in Testing Welded Joints 224

PART III. TYPICAL EXAMPLES OF PARTS RECLAMATION (ROLLING STOCK, SHIP STRUCTURES, MINING AND METALLURGICAL EQUIPMENT, MACHINES, AND TOOLS)

Vrana, B. (Czechoslovakia). Practices in the Repair of Cutting Tools With the Use of Welding Processes 291

VRANA, B.

Reducing production cost by the use of welding in assembly-line production. p.15.
(Zvaranie, Vol. 6, No. 1, Jan. 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

VRANA, Boleslav

"Cold welding of aluminum and copper" by I.B.Baranov. Reviewed by Boleslav Vrana. Stroj vyr 10 no.6:325 '62.

VRANA, B.

New method of welding by friction. p.105.
(Zvaranie, Vol. 6, No. 4, Apr. 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

VRANA, B.

AGRICULTURE

PERIODICAL: ZEMEDELSKE STROJE, VOL. 3, no. 12, Dec. 1958

Vrana, B. Some problems of the tractor four-wheel drive and the design of the Zetor Super 4 tractor. p. 268.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 5, May 1959, Unclass.

VRANA, Bohumir; MATIS, Frantisek; MALY, Bohumir; DEMEL, Josef

Congenital obliteration of the gastrointestinal lumen. Cesk. pediat. 14 no.2:130-133 5 Feb 59.

1. Detske oddeleni nemocnice OUNZ v C. Tesine, prednosta dr. B. Vrana Chirurg. oddeleni nemocnice OUNZ v. C. Tesine, prednost dr. F. Matis Chirurg. oddeleni nemocnice KUNZ v Ostrave-Zabrehu, prednosta dr. K. Typovsky Detske oddeleni KUNZ v Ostrave-Zabrehu, prednosta dr. B. Vranova.
(GASTROINTESTINAL SYSTEM, abnorm.
obliteration of lumen (Cz))

VRANA, I.

VRANA, I. Principles of the construction of elements for welding presses; function of welding elements. . 130.

Vol. 3, No. 1/2, 1954
SVARACSYY SBORNIK
TECHNOLOGY
Bratislava, Czechoslovakia

So: East European Accessions, Vo. 5, No. 5, May 1956

VRANA, B.

"Welding Technique Exhibit." p. 120.

ZVARANIE. (Ministerstvo hutneho prumyslu a rudnych bani a Ministerstvo strojarenstva). Bratislava, Czechoslovakia, Vol. 8, No. 4, Apr. 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

VRANA, B.

Welding under a flux at the Klement Gottwald Automobile Works in Prague, p. 365, ZVARANIE (Ministerstvo hutneho prumhslu a rudnych bani a Ministerstvo strojarstvo) Baratislava, Vol. 3, No. 12, Dec. 1954

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1955

VRANA, B.

Replacing forgings and castings by welds, p. 206, STROJIRENSKA VYROBA (Ministerstvo strojirenstvi) Praha, Vol. 3, No. 5, May 1955

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1955

VRANA, B.

Equipment for 100 per cent tightness control of welded parts produced in series, by means of water pressure. Zvaranie 12 no.9:267-268 S'63.

1. Technolog svarovani, Automobilove zavody Letnany, Zavody Klementa Gottwalda , Praha.

BELYAKOV, V.A.; VEKSLER, V.I.; VIRYASOV, N.M.; VRANA, I.; KIM KHI IN; KLODNITSKAYA, Ye.N.; KUZNETSOV, A.A.; MIKHUL, A.; NGUYEN DIN TY; SOLOV'YEV, M.I.; KHOFMOKL', T.; CHEN LIN-YAN'

Production of Λ -hyperons by 7-8 Bev. negative π -mesons on hydrogen. Zhur. eksp. i teor. fiz. 45 no.2:88-89 Ag '63. (MIRA 16:9)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Hyperons) (Mesons)
(Nuclear reactions)

VRANA, B.

Forty-one years in welding. Zvaranie 12 no.8:238 Ag '63.

VRANA, Boleslav

For high and permanent quality of welds. Zvaranie 12 no.10: 277-284 O '63.

1. Automobilove zavody Letnany, Zavody Klementa Gottwalda, Praha.

VRANA, B. - Zvaranie - Vol. 4, no. 2, Feb. 1955.

Welded or riveted frames for motor vehicles. p. 44.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955 Uncl.

VRANA, B.

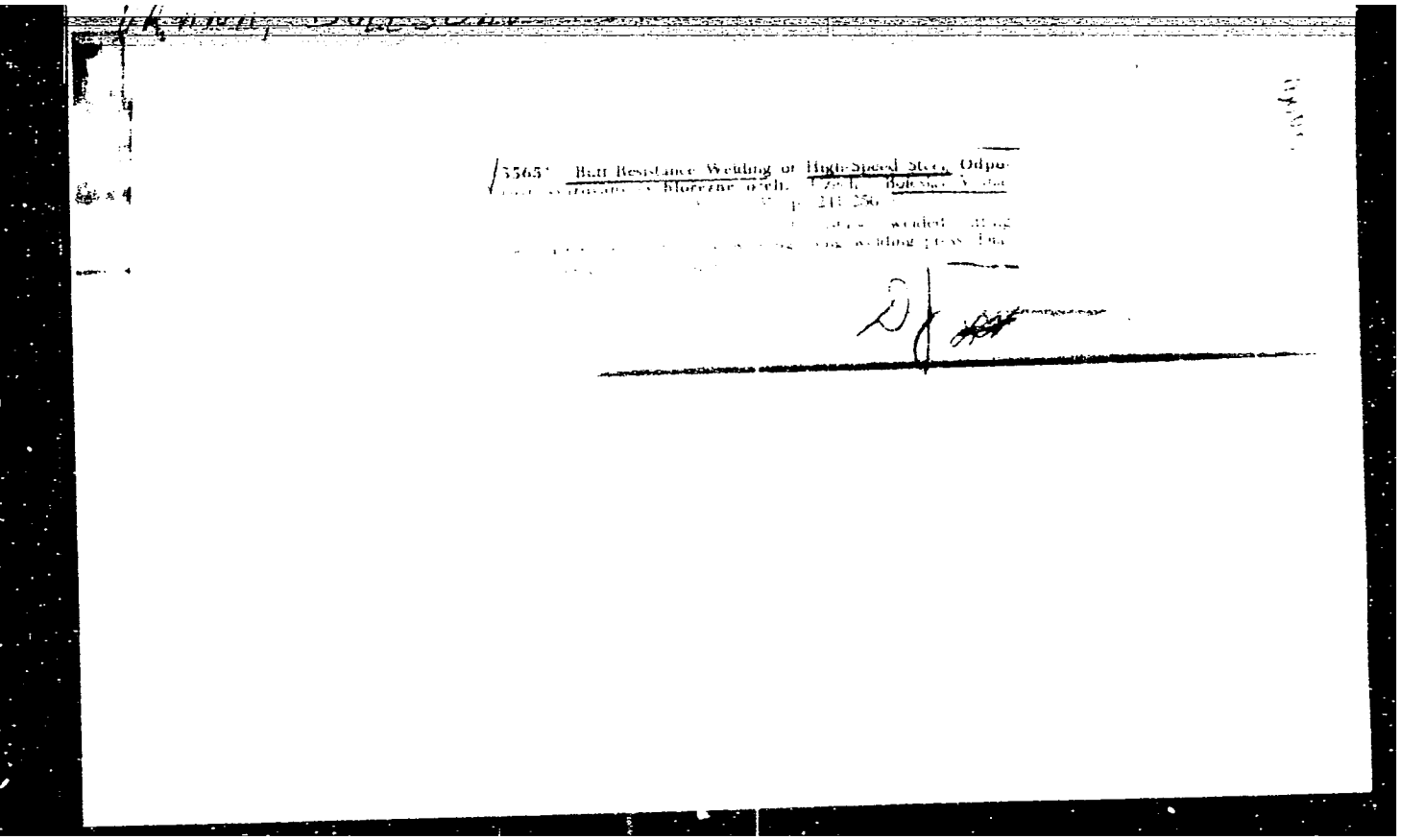
Discussion of the article "Full Utilization of Welding Technology"; also, remarks by J. Motyka. p. 502. STROJIRENSTVA VYROBA. (Ministerstvo strojirenstvi) Praha. Vol. 3, no. 12, Dec. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

VRANA, Boleslav, nositel radu

From the life of a socialist work brigade in Automobilove zavody Letnany, Zavody Klementa Gottwalda Praha (Automobile Factory Letnany, Klement Gottwald Factory Prague). Zvaranie 11 no. 6:188-189 Je 62.

1. Automobilove zavody Letnany, Zavody Klementa Gottwalda Praha.



VRANA, B.

Government's decision on mechanization in the industry relative to to resistance welding. p. 260.

ZVARANIE Vol. 4, no. 9/10, Sept. 1955.

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

VRANIC, B.

How technical literature helps my work. P. 269.
Propagating methods of the best workers. P. 270.

SO: East European Accessions List, Vol. 3, No. 9, Sept. 1954, Lib. of Congress.

VLAKA, B.

Automatic pressure welding on the welding press. P. 201.

SO: East European Accessions List, Vol. 3, No. 9, Sept. 1954, Lib. of Congress

VRANA, B.

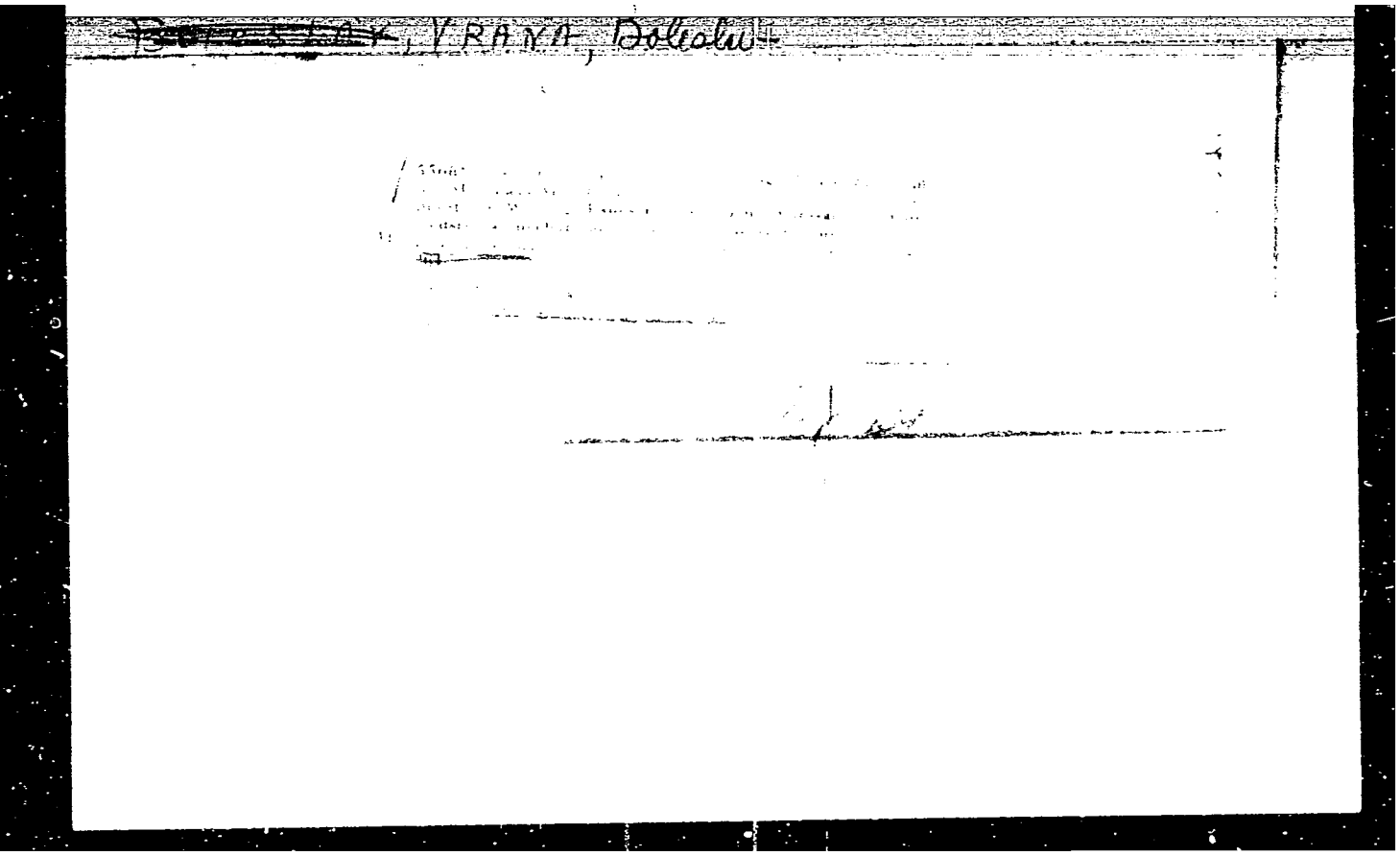
Repairing complicated tools by welding. p. 24.
(Zvaranie, Vol. 4, no. 1, Jan. 1955, Praha.)

SO; Monthly List of East European Accession, (EEAL), LC, Vol. 4,
No. 11, Nov. 1955, Uncl.

VRANA, B. SMOK, J.

Conference on welding in the works of the Ministry of Machine Manufacture. p. 65. (Zvaranie, Vol. 4, no. 3, Mar. 1955, Praha.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.



VRANA, B.

"Automatic Pressure Welding on the Welding Press." p. 201, Praha, Vol. 2, no. 5, May 1954.

SO: East European Accession List, Vol. 3, No. 9, September 1954, Lib. of Congress

VRANA, B.

"How Technical Literature Helps my Work." p. 269, Praha, Vol. 2, no. 6, June 1954.
"Propagating Methods of the Best Workers." p. 270, Praha, Vol. 2, no. 6, June 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

UHRIN, P.; VRANA, B.

Congenital absence of the thyroid and prolonged icterus neonatorum.
Cesk.pediat.16 no.3:254-257 Mr '61.

1. Endokrinologicky ustav v Lubochni, riaditel MUDr. E. Spanar a detske oddelenie OUNZ; Cesky Tesin, prednosta MUDr. B. Vrana.
(THYROID GLAND abnorm)
(ERYTHROBLASTOSIS FETAL compl)

VRANA, Boleslav

Practical experience with CO_2 welding in the Ceske zavody motocyklove enterprise in Střakonice; a discussion. Zvaranie 12 no.4:107-108 Ap '63.

RETOVSKY, R.; KLASTERSKA, Irena; VRANA, Dagmar

Study of the growth and development of chlorella populations in the culture as a whole. VII. The influence of different light-night periods on the life cycle of chlorella cells. Folia microbiol. 7 no.6:372-382 '62.

1. Department of Technical Microbiology, Institute of Microbiology, Czechoslovak Academy of Sciences, Prague 6.
(ALGAE) (LIGHT)

S/056/63/044/001/017/067
B108/B180

AUTHORS: Veksler, V. I., Viryasov, N. M., Vrana, I., Kim Khi In, Kladnitskaya, Ye. N., Kuznetsov, A. A., Nguyen Din Zy, Solov'yev, M. I., Khofmokl', T., Chen Ling-yen

TITLE: The polarization of Λ-hyperons produced in π^-p-interactions at an energy of 7 - 8 Bev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 1, 1963, 84 - 99

TEXT: 60000 photographs were examined of the interaction of π^--mesons of 7 - 8 Bev/c with protons in a 24-liter propane bubble chamber in a permanent magnetic field of 13,700 oe. Method and apparatus have already been described (Wang Kang-ch'ang, M. I. Solov'yev, Yu. N. Shkobin. PTE, 1, 41, 1959; M. I. Solov'yev, Proc. of the 1960 Ann. Int. Conf. on High Energy Physics at Rochester, p. 388; Wang Kang-ch'ang et al. ZhETF, 39, 1854, 1960). The Λ-hyperons were unpolarized during their production. This follows from the fact that there is no asymmetry in the angular distributions of the protons from the decay of the Λ-hyperons relative to the hyperon momentum. The angular distributions of the Λ-hyperon produc-

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B108/B180

The polarization of Λ -hyperons ...

tion planes relative to the production planes of the K-mesons and pions are nearly isotropic. The results agree with the law of conservation of parity in strong interactions involving strange particles. There are 13 figures and 4 tables.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: July 31, 1962

Card 2/2

BELYAKOV, V.A.; VAN YUN-CHAN [Wang Yung-ch'ang]; VEKSLER, V.I.; VIRYASOV, N.M.; VRANA, I.; DU YUAN'-TSAY [Tu Yuan-ts'ai]; KIM KHI IN; KLODNITSKAYA, Ye.N.; KUZNETSOV, A.A.; MIKHUL, E.; NGUYEN DIN TY; PATERA, I.; PENEV, V.N.; SOKOLOVA, Ye.S.; SOLOV'YEV, M.I.; KHOFMOKL', T.; CHEN LIN-YAN'; MIKHUL, A. [Mihul, A.]

Study of Λ-hyperon and K^0-meson production in π^--p-interactions at an energy of 7 - 8 Billion Electron Volts. Zhur.eksp. i teor. fiz. 44 no.2:431-443 F '63. (MIRA 16:7)

1. Ob"yedinennyy institut yadernykh issledovaniy. 2. Sotrudnik Instituta atomnoy fiziki v Bukhareste (for Mikhul).

VEKSLER, V.I.; VIRYASOV, N.M.; VRANA, I.; KIM KH IN; KLADNITSKAYA, Ye.N.; KUZNETSOV, A.A.; NGUYEN DIN TY; SOLOV'YEV, M.I.; KHOFMOKL', T.; CHEN LIN-YAN'; SARANTSEVA, V.R., tekhn. red.

[Polarization of Λ-hyperons produced in π^--p-interactions at an energy of 7-8 Bev] Izuchenie poliarizatsii Λ-giperonov pri rozhdenii v π^--p-vzaimodeistviiakh s energiei 7-8 Bev. Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 23 p. (MIRA 15:10)
(Hyperons--Decay) (Masons--Decay) (Protons)

S/056/63/044/002/007/065
B102/B186

AUTHORS: Belyakov, V. A., Wang Yung Ch'ang, Veksler, V. I., Viryasov, N. M., Vrana, I., Tu Yüan-ts'ai, Kim Khi Ying, Kladnitskaya, Ye. N., Kuznetsov, A. A., Mikhul, E. Nguyen Din Ty, Patera, I., Penev, V. N., Sokolova, Ye. S., Solov'yev, M. I., Khofmokl', T., Cheng Ling-yen, Mikhul, A.

TITLE: Investigation of Λ-hyperon and K^0-meson production processes in π^-p interactions at 7-8 Bev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 431-443

TEXT: The c.m.s. momentum and angular distributions determined for the Λ and K^0 particles produced in πp interactions are given and discussed. The measurements were made using a 24-liter propane bubble chamber in a field of 13,700 oe. The total momentum spectrum of the Λ-hyperons produced in the reactions

$$\pi^- + p \to \Lambda(\Sigma^0) + K^0 + n\pi, \quad (1)$$

$$\pi^- + p \to \Lambda(\Sigma^0) + K^+ + n\pi \quad (2)$$

Investigation of Λ-hyperon ...

are shown in Fig. 1, compared with theoretical results. As it may be seen the statistical theory describes the experimental curve very well if the isobars and the cases with p_p-p = Δ<700 Mev are neglected.

Δ < 700 Mev corresponds to ~30% of all Λ, these being produced in peripheral interactions. The Λ angular distribution has a distinct backward peak ($\vec{n}_\Lambda/\bar{n}_\Lambda$ = 0.18 ± 0.02). With increasing multiplicity n_s the agreement between experiment and statistical theory improves. The Λ angular distribution and the distribution with respect to $p_\perp$ is virtually independent of n_s. The overall mean of the transverse momentum is 383 ± 12 Mev/c; for Δ < 700 Mev, $\vec{p}_{\Lambda_\perp}$ = 295 ± 14 Mev/c and for $\Delta \geqslant$ 700 Mev, $\vec{p}_{\Lambda_\perp}$ = 432 ± 18 Mev/c. For the $K^o(\bar{K}^o)$ mesons produced in the reactions

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Investigation of Λ-hyperon ...

$$\pi^- + p \rightarrow \begin{cases} K^0 + \Lambda(\Sigma^0) + n\pi, & (1) \\ K^0 + \bar{K}^0 + N + n\pi, & (3) \\ K^0 + K^- + N + n\pi, & (4) \\ \bar{K}^0 + K^+ + N + n\pi, & (5) \\ K^0 + \Sigma^\pm + n\pi. & (6) \end{cases}$$

the total momentum spectrum measured (Fig. 4) is weaker than that calculated according to the statistical theory. The angular distribution (Fig. 5) has, besides the isotropic part, a forward peak ($\vec{n}_{K^0}/\hat{n}_{K^0} = 1.61 \pm 0.15$). The forward-backward ratio decreases with increasing n_s. For the charged pions arising in Λ-production events the momentum distributions are, for $p_\pi^* \geq 400$ Mev/c, well described by the statistical theory without taking the isobars into account; for $p_\pi^* < 400$ Mev/c it is higher than that obtained from theory. The angular distributions for $n_s = 2, 4, 6$ are characterized by

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S/056/63/044/002/007/065
B102/B186

Investigation of Λ-hyperon ...

$\vec{n}_{\pi^+}/\overleftarrow{n}_{\pi^+} = 1.10 \pm 0.12$, $\vec{n}_{\pi^-}/\overleftarrow{n}_{\pi^-} = 1.40 \pm 0.13$.

The mean number of π^0 mesons produced per π^-p interaction with Λ production is 1.23 ± 0.14. The angular distribution of π^- arising in stars with K^0 production has a flat forward maximum ($\vec{n}_{\pi^-}/\overleftarrow{n}_{\pi^-} = 1.10 \pm 0.10$). The mean number of charged particles produced together with Λ is $n_s = 2.22 \pm 0.13$ which agrees closely with the statistical theory without the isobars. The main part of Λ and K^0 is produced in two-pronged stars. The admixture of $K^0\Sigma^{\pm}$ pairs amounts to less than 20% of the number of K^0K^- + K^0K^+ pairs. The momentum distribution of charged pions from π^-p interactions with Λ-hyperon production are characterized by $\overline{p^*_{\pi^+}} = 425 \pm 16$ Mev/c and $\overline{p^*_{\pi^-}} = 444 \pm 15$ Mev/c. From a comparison of these angular distributions it is concluded that processes involving ΛK or $K\bar{K}$ pair production are more central than the usual processes of multiple pion production. If one divides the π^-p interactions with strange particle production into head-on

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Investigation of Λ-hyperon ...

and peripheral collisions one can say that those involving $K\bar{K}$ pair production are rather of the head-on type than those with ΛK pair production. There are 15 figures and 2 tables.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: July 31, 1962

Fig. 1. Total momentum spectrum of hyperons; dashed line: without correction for recording probability; shaded area: events with $\Delta < 700$ Mev; curves obtained from statistical theory with (I) and without (II) isobars, and without the events with $\Delta < 700$ Mev (II').

Fig. 4. K^0 total momentum spectrum.

Fig. 5. K^0 total angular distribution.

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VRANA, I.

(6)

BELYAKOV, V.A., WANG YUNG-CHANG, VEKSLER, V.I., VIRYASOV, N.M., VRANA, I., LU I-TSAN-TSAI, KIM HI IN, KLADNITSKAYA, Ye. N., KUZNETSOV, A.A., MIHUL, A. NGUYEN DING TI, I. PATERA, V. PENEV, SOKOLOVA, Ye. S., SOLOVYEV, M.I., HORAKL, T., and TSEN LIN-IAN

"The Investigation of Λ-Hyperon and K^0-Meson Production In $\bar{u}C$ and Interactions at 7-8 Gev"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of High Energies

VAN GAN-CHAN [Wang Kang-ch'ang]; VAN TSU-TSEN [Wang TS'u-ts$ung]; VEKSLER, V.I.; VRANA, I.; DIN DA-TSAO [Ting Ta-ts'ao]; IVANOV, V.G.; KALDNITSKAYA, Ye.N.; KUZNETSOV, A.A.; NGUYEN DIN TY; NIKITIN, A.V.; SOLOV'YEV, M.I.; KHOFMOKL', T.; CHEN LIN-YAN'

Nonconservation of parity in strong interactions with participation of strange particles. Zhur. eksp. i teor. fiz. 39 no. 6:1854-1856 D '60. (MIRA 14:1)

1. Ob"yedinennyy institut yadernykh issledovatniy.
(Particles (Nuclear physics))

88469

S/056/60/039/006/062/063
B006/B063

24.6901

AUTHORS: Van Gan-chan, Van Tsu-tszen, Veksler, V. I., Vrana, I., Din Da-tsao, Ivanov, V. G., Kim Khi In, Kladnitskaya, Ye.N., Kuznetsov, A. A., Nguyen Din Ty, Nikitin, A. V., Solov'yev, M. I., Khofmokl', T., Chen Lin-yan'

TITLE: Non-conservation of Parity in Strong Interaction Involving Strange Particles

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 6(12), pp. 1854-1856

TEXT: The authors wanted to obtain an experimental proof for the non-conservation of parity in strong interaction. The proof suggested by Solov'yev for the longitudinal polarization of a Λ^0 hyperon produced in nuclear collisions served as experimentum crucis. A number of experiments at low and medium energies failed. This "Letter to the Editor" presents the preliminary results of experiments with nuclear collisions and high energies. An analysis has been made of the angular asymmetries in decays of Λ^0 hyperons produced in π^-p collisions at 7-8 Bev. A total of

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S/056/60/039/006/062/063
B006/B063

Non-conservation of Parity in Strong Interaction Involving Strange Particles

34,000 photographs were taken, 14,000 at 6.8 Bev/c and 20,000 at ~8 Bev/c. Altogether, 175 Λ^0 and 33 Λ^0 or K^0 particles were detected; the systematic error in the 208 events was ± 6 particles. The asymmetry in the Λ^0 decay was studied in the coordinate system shown in the accompanying figure. The asymmetry in the ξ^* angular distribution is the up-down asymmetry ($\alpha\bar{P}_3$), that of θ^*_+ is the forward-backward asymmetry ($\alpha\bar{P}_1$), and that of ψ^* is the right-left asymmetry ($\alpha\bar{P}_2$). $\alpha\bar{P}_1$ was calculated from the formula $\alpha\bar{P}_1 = \frac{3}{N}\sum_{i=1}^{N} \cos\theta^*_i \pm \sqrt{3\left[1 - (\alpha\bar{P})^2\right]}/N$, where α is the asymmetry factor of the Λ^0 hyperons in the case of total polarization ($\bar{P} = 1$); $\bar{P}_1$ is the mean polarization of Λ^0; θ^* is the angle between the Λ^0 decay proton and the direction of motion of the Λ^0 particle. The other asymmetries were calculated analogously. Results are collected in Table 2. Right-left and up-down asymmetries were not observed. The forward-backward asymmetry obtained may indicate the non-conservation of parity in strong interaction for strange particle production; however, the present stage of investigation does not exclude all errors. The investigations

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Non-conservation of Parity in Strong Interaction Involving Strange Particles

S/056/60/039/006/062/063
B006/B063

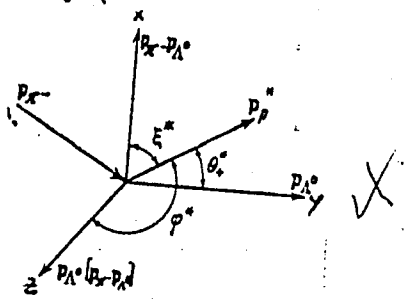
are being continued. There are 1 figure, 2 tables, and 8 references: 3 Soviet and 5 US.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: September 1, 1960

Таблица 2

p_{Λ^0}	N	$\alpha\overline{P}_1$	$\alpha\overline{P}_2$	$\alpha\overline{P}_3$
$400<p_{\Lambda^0}\leqslant 1200$	104	$-0,58 \pm 0,15$	$0,00 \pm 0,17$	$0,03 \pm 0,17$
	104 + (4)	$-0,50 \pm 0,15$	$0,06 \pm 0,16$	$0,07 \pm 0,16$
	104 + (4) + (6)	$-0,37 \pm 0,15$		
$p_{\Lambda^0}>1200$	68	$-0,66 \pm 0,19$	$0,14 \pm 0,21$	$0,24 \pm 0,21$
	68 + (29)	$-0,09 \pm 0,17$	$0,06 \pm 0,17$	$0,21 \pm 0,17$
Все p_{Λ^0}	172	$-0,61 \pm 0,12$	$0,05 \pm 0,13$	$0,11 \pm 0,13$
	172 + (33)	$-0,31 \pm 0,12$	$0,00 \pm 0,12$	$0,12 \pm 0,12$
	172 + (33) + (6)	$-0,24 \pm 0,12$		



Card 3/3

S/056/61/040/002/012/047
B102/B202

AUTHORS: Wang Kang-ch'ang, Wang Ts'u-tseng, Veksler, V. I., Vrana, I., Ting Ta-ts'ao, Invanov, V. G., Kladnitskaya, Ye. N., Kuznetsov, A. A., Nguyen Din Ty, Nikitin, A. V., Solov'yev, M. I., Ch'eng Ling-yen

TITLE: Production of $\Lambda^0(\Sigma^0)$ hyperons and K^0 mesons in π^-p interactions with a π^- meson momentum of 6.8 $\pm$0.6 Bev/c

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 2, 1961, 464-474

TEXT: The $\Lambda^0(\Sigma^0)$ and K^0 production in π^-p collisions has hitherto been studied only for threshold momenta of (0.9 - 1.4) Bev/c; to explain the nucleon structure and the interaction, studies must be made at higher energies. The studies described were made with a 24-liter propane bubble chamber and a constant magnetic field of 13,700 oe. The experiment is described in Ref. 2 (ZhETF, 38, 426, 1960). The pictures were taken with a stereophotocamera with "Russarplazmat" objectives (focal length 67 mm). The pictures were evaluated 2 or 3 times with stereo-magnifiers and reprojectors.

Card 1/11

Production of ...

In this case, efficiency was 91 and 96%. Λ^0 and K^0 particles were selected according to rigorous rules. Altogether, 233 events conforming to these criteria were observed: space coordinates, angles, and momenta of these events were calculated by the electronic computer "Ural". The values obtained were geometrically corrected (consideration of the observation probabilities for Λ^0 and K^0 decays in the chamber volume as well as for Λ^0 and K^0 production). The number of events, in which 0, 2, 4, or 6 charged particles were observed besides K^0 and/or Λ^0 particles are given in Table 1. The mean number of charged particles accompanying a Λ^0 or K^0 production was 2.5 ± 0.1; also K^- mesons were observed among these charged particles. The neutral particles recorded were produced in the reactions

$$\pi^- + p \rightarrow \Lambda^0 + K^0 + n\pi \quad (1)$$
$$\pi^- + p \rightarrow \Sigma^0 + K^0 + n\pi \quad (2)$$
$$\pi^- + p \rightarrow \Lambda^0 + K^+ + n\pi$$
$$\pi^- + p \rightarrow \Sigma^0 + K^+ + n\pi$$
$$\pi^- + p \rightarrow K^0 + \bar{K}^0 + N + n\pi$$
$$\pi^- + p \rightarrow K^0 + K^- + N + n\pi$$
$$\pi^- + p \rightarrow \bar{K}^0 + K^+ + N + n\pi$$

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$\sigma(Y^0K^0) = \sigma(1) + \sigma(2)$, $\sigma(Y^0K^+) = \sigma(3) + \sigma(4)$, also the reactions

$\sigma(K^0\bar{K}^0) = \sigma(5)$, $\sigma(K^0K^-) = \sigma(6)$, $\sigma(\bar{K}^0K^+) = \sigma(7)$

$$\pi^- + p \rightarrow \Sigma^- + K^0 + n\pi \quad (8,9)$$

$$\pi^- + p \rightarrow \Xi^- + K^0 + K^+ + n\pi \quad (10)$$

$$\pi^- + p \rightarrow \Xi^0 + K^0 + K^0 + n\pi \quad (11)$$

$\sigma(Y^0K^{0,+}) = \sigma(Y^0K^0) + \sigma(Y^0K^+)$,

$\sigma(K^0, \bar{K}) = \sigma(K^0\bar{K}^0) + \sigma(K^0K^-) + \sigma(\bar{K}^0K^+)$.

were possible. In the following, the reactions are referred to only by these figures; the cross sections are indicated by (I). The total cross section of $\Lambda^0(\Sigma^0)$ and K^0 production on free protons was found to be 2.0 ± 0.35 mb taking account of all corrections, including the μ^- admixture and the efficiency of observation. In this case, $\sigma(Y^0K^{0,+}) = 0.8 \pm 0.25$ mb, $\sigma(K^0\bar{K}) = 1.2 \pm 0.3$ mb, $R = \sigma(Y^0K^{0,+})/\sigma(K^0\bar{K}) = 0.7 \pm 0.2$. Momentum and angular distributions are illustrated in several diagrams. The mean transverse momenta of Λ^0 and K^0 particles, 388 ± 35 and 393 ± 35 Mev/c, respectively, were equal within the limits of measurement errors. $Y^0K^{0,+}$ - and $K^0\bar{K}$ pair production cross sections: The experimental results indicate that at π^- energies of 9 Bev, the $K^0\bar{K}$ pair production cross section is higher than that of $Y^0K^{0,+}$. The ratio reads

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Production of ...

$$R = \frac{\sigma(Y^0K^0) + \sigma(Y^0K^+)}{\sigma(K^0\bar{K}^0) + \sigma(K^0K^-) + \sigma(\bar{K}^0K^+)} = 0.7\pm0.2.$$

The authors only studied $K^0\bar{K}^0$, K^0K^-, and $\bar{K}^0K^+$, and obtained

$$R = \frac{\sigma(Y^0K^0) + \sigma(Y^0K^+)}{\sigma(K^0\bar{K}^0) + \sigma(K^0K^-) + \sigma(\bar{K}^0K^+) + \sigma(K^+K^-)} = 0.5\pm0.15.$$

Near the production threshold (0.96 Bev), $\sigma(Y^0K^0) = 1.1$ mb; it drops to 0.4 mb at 1.2 Bev, and increases again to 0.6 mb at 1.3 Bev. The ratio $\sigma(Y^0K)/\sigma(K^0\bar{K})$ was experimentally determined to be 0.7; the theoretically obtained value (statistical theory) was 7.5. Mean multiplicity of charged particles: At 6.8 Bev, not only strange particles but also charged and uncharged particles were produced. In the case of multiple pion production, the mean number of charged particles was $\bar{n}_s = 3.2\pm0.2$, and in strange-particle production, $\bar{n}_s = 2.5\pm0.1$. Pions constitute the main part of charged particles. It can be concluded from the energy balance in a production event that the number of pions produced together with a strange particle is lower than in the case of ordinary multiple pion production. This is in

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Production of ...

agreement with the experimental results. The number of neutral pions accompanying strange-particle and normal multiple production is 2:3. 0.5 ± 0.12 was obtained for n_K. Angular and momentum distributions: The experimental results are illustrated in diagrams. In the center-of-mass system, the Λ^0 hyperons show a strong tendency to depart in backward direction ($n_{forw.}/n_{backw.} = 1:5$). This asymmetry was also observed in Λ^0K^0 pair-production events. Table 4 gives numerical data concerning the angular distribution of Λ^0 and K^0 pairs in the c. m. s. Mesons produced together with Λ^0 hyperons show a forward anisotropy at $n_s = 2$ ($n_{\pi^-forw.}/n_{\pi^-backw.} = 1.7\pm0.5$). At higher values of n_s, this anisotropy is less distinct. Transverse momenta: One of the most interesting results was that Λ^0 hyperons and nucleons produced in inelastic collisions without strange-particle production had the same distribution and the same mean transverse momenta which are independent of multiplicity. The interaction radius in strange-particle production can be estimated from the root-mean-square transverse momenta. The authors obtained $4\cdot10^{-14}$ cm. They thank D. I. Blokhintsev, M. A. Markov, V. I. Ogiyevetskiy, Chou Kuang-chao, I. V. Chuvilo, V. S. Barashenkov, V. G. Solov'yev for discussion, L. P. Zinov'yev, N. I. Pavlov, K. B. Chekhlov.

Card 5/11

L. N. Belyayev for help in the experimental work, and T. Khofmokl' and Kim Khi Inu for assistance in the verification of the results. N. G. Birger and V. Belyakov are mentioned. There are 7 figures, 4 tables, and 9 references: 4 Soviet-bloc and 5 non-Soviet-bloc. The two references to English-language publications read as follows: Ref. 3: D. Glaser, Ann. Intern. Conf. on High Energy Physics at CERN, Geneva 1958; Ref 6: G. Maenchen, W. Fowler, W. Powell, R. Wright, Phys. Rev. 108, 850, 1957.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: September 1, 1960

Fig. 1: Momentum distributions of Λ^0 hyperons in the c. m. s.; a) total spectrum, b) that of backward (solid line) and forward (dashed line) emitted Λ^0 hyperons.
Fig. 2: Λ^0 angular distribution in the c. m. s.; number of events given in parentheses.

S/056/61/040/002/012/047
B102/B202

Production of ...

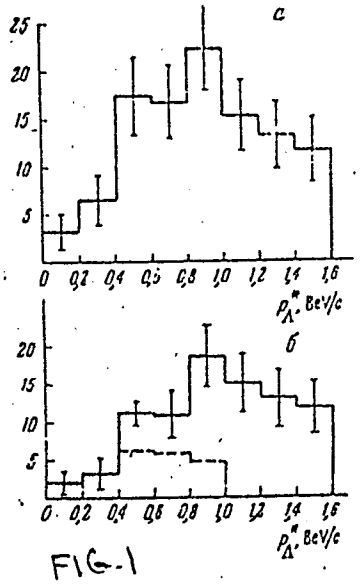

FIG-1

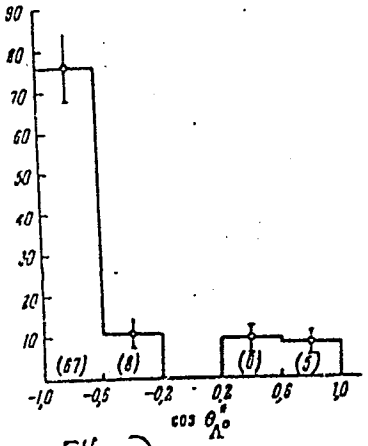

FIG-2

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Production of ...

Fig. 3: K^0 momentum distributions in the c. m. s.; a) total spectrum, b) spectrum of forward and backward emitted K^0 mesons.
Fig. 4: K^0 angular distributions, a) $n_s \leq 2$, b) $n_s \geq 4$.

Fig. 5: Angular distributions of π^- mesons in the c. m. s_0, a) multiple production of π^- by π^-; b) for π^- produced together with Λ^0; solid line: $n_s = 2 + 4 + 6$; dashed line: $n_s = 2$.
Fig. 6: π^- momentum distribution in the c. m. s.; a) and b) the same as in Fig. 5.
Fig. 7: transverse momentum distribution a) for Λ^0 hyperons, b) for K^0 mesons.

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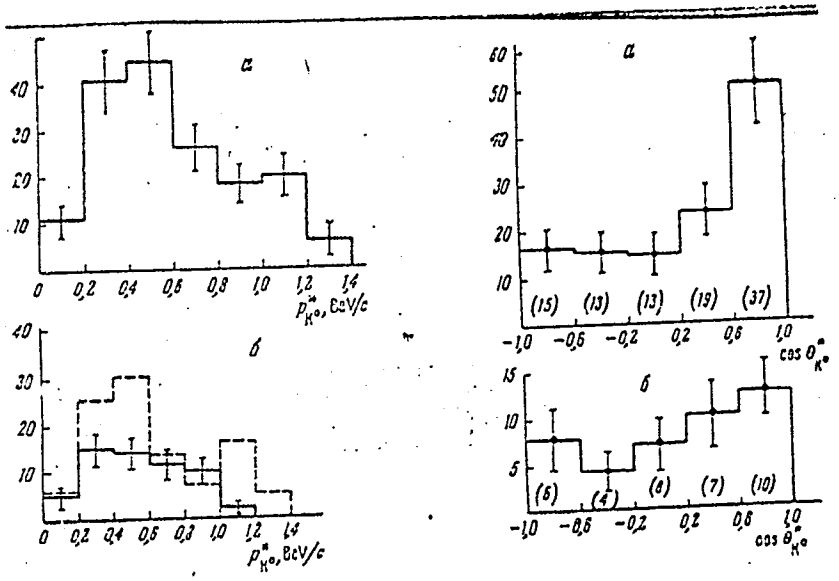
S/056/61/040/002/012/047
B102/B202

Production of ...

Figs. 3 and 4



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S/056/61/040/002/012/047
B102/B202

Production of ...

Figs. 5 and 6

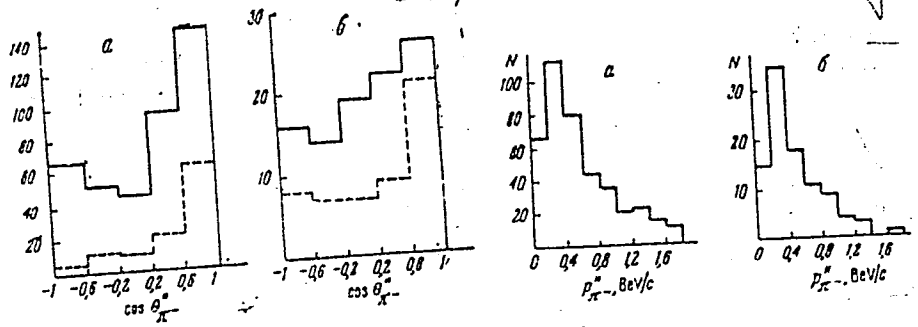
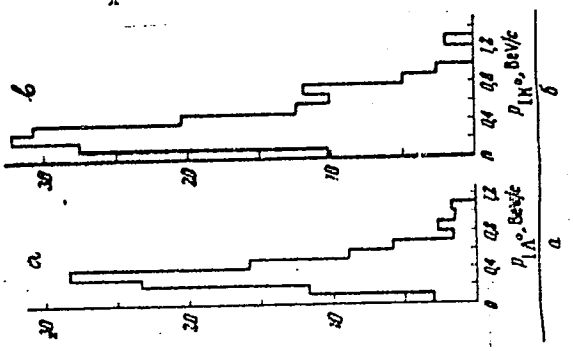


Fig. 7



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S/056/61/040/002/012/047
B102/B202

Production of ...

Legend to Table 1:
1) Identification of the particles, 2) sum, 3) number of charged particles.

Таблица 1

Идентифицированные частицы (1)	Число заряженных частиц, n_s (3)				
	0	2	4	6	Сумма (2)
$\Lambda^0 + K^0$	2	8	3	0	13
Λ^0	6	47	17	3	73
$K^0 + \overline{K}^0$	0	5	1	0	6
K^0	16	62	26	3	107
Λ^0 или K^0	2	6	2	0	10
Сумма (2)	26	128	49	6	209
	12,5%	61,6%	23%	2,9%	100%

Card 11/11

VRANA, I.
3.2410

S/627/60/002/000/025/027
D299/D304

AUTHORS: Penivesh, Z., Frenkel', A., Telbits, P., Pernegr, Ya., Petrzhilka, V., Sedlak, Ya., and Vrana, I.

TITLE: Investigating high-energy electron-photon cascade in emulsions

SOURCE: International Conference on Cosmic Radiation. Moscow, 1959. Trudy. v. 2. Shirokiye atmosfernyye livni i kaskadnyye protsessy, 307-310

TEXT: The energy spectrum of the primary photon was determined; the energy spectrum of pairs formed at depths of up to 1.5 units was studied. The obtained spectra were compared with the distribution based on Bethe-Heitler's theory, and with that based on Migdal's formulas (a further development of the Landau approximation). The energy E_o of the primary photon was determined by the Chudakov-Perkins effect, by the longitudinal and lateral shower development, and also by Pinkau's method. The values for the primary energy,

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S/627/60/002/000/025/027
D299/D304

obtained by shower development in the approximations A and B, were underrated. A more accurate energy estimate is obtained by means of the curves of A. A. Varfolomeyev and I. A. Svetlolobov (Ref. 11: ZhETF, 36, 1771, 1959). The data of Ref. 11 yielded a higher value for the primary energy. In the following, a primary energy of $2 \cdot 10^{12}$ ev. is assumed. The energy of electron pairs was determined either by E. Lohrmann's method (Ref. 15: Nuovo Cim., 2, 1029, 1955) or by measuring multiple scattering. In some cases both methods were used. The results are shown in a table and in 2 figures which also exhibit (for comparison) two theoretical curves corresponding to Bethe-Heitler's and Migdal's formulas, respectively. The authors conclude that by studying only one or a few cascades, no definite decision can be made as to the validity of either Bethe-Heitler's or Landau-Migdal's theory. In this light, the present investigation should be considered as a contribution to the general statistics of cascades, investigations of a larger number of shower cascades being required before reaching a definite conclusion. The authors express their thanks to Professors Yanoshi, Farkas and Danysh. There

are 2 figures, 2 tables and 18 references: 12 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: D. H. Perkins, Phil. Mag.,46, 1146, 1955; K. Pinkau. Phil. Mag., 2, 1389, 1957; J. C. Butcher, B. A. Chartres and H. Messel. Nuc. Phys., 6, 271, 1958; J.Nishimura and K. Kamata, Prog. Theor. Phys., 7, 185, 1952.

ASSOCIATION: Tsentral'nyy issledovatel'skiy institut fiziki, otdeleniye kosmicheskikh luchey (Central Research Institute of Physics, Cosmic Ray Section, Budapest); Fizicheskiy institut Akademii nauk (Physics Institute of the Academy of Sciences, Prague)

VEKSLER, V.I.; VRANA, I.; KLADNITSKAYA, Ye.N.; KUZNETSOV, A.A.; MIHUL, A.K.; MIHUL, Ye.K.; NGUYEN DINH TU; PENEV, V.N.; SOLOV'YEV, M.I.; HOFMOKI,T.; CHEN-LING-YEN.

On strange particle prcduction in π^- p interaction. Dubna, Izdatel'skii otdel Ob"edinennogo in-ta iadernykh issledovanii, 1961. 9 p.

(No subject heading)

VEKSLER, V.I.; VIRYASOV, N.M.; VRANA, I.; KIM KHI IN; KLADNITSKAYA, Ye.N.; KUZNETSOV, A.A.; NGUYEN DIN TY; SOLOV'YEV, M.I.; KHOFMOKL', T.; CHEN LIN-YAN'

Polarization of Λ^0-hyperons produced in π^-p-interactions at an energy of 7 - 8 Bev. Zhur. eksp. i teor. fiz. 44 no.1: 84-99 Ja '63. (MIRA 16:5)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Hyperons) (Mesons) (Nuclear reactions)

BELYAKOV, V.A.; VAN YUN-CHAN [Wang Yung ch'ang]; VEKSLER, V.I.; VIRYASOV, N.M.; VRANA, I.; DU YUAN'-TSAY [Tu Yuan ts'ai]; KIM KHI IN; KLADNITSKAYA, Ye.N.; KUZNETSOV, A.A.; MIKHUL, E.; NGUYEN, DIN TY; PATERA, I.; PENEV, V.N.; SOKOLOVA, Ye.S.; SOLOV'YEV, M.I.; KHOFMOKL', T.; MIKHUL, A.

[Production of Λ-hyperons and K^0-mesons in π^-p-interactions at an energy of 7-8 Bev] Issledovanie protsessov rozhdeniia Λ-giperonov i K^0-mezonov v π^-p- vzaimodeistviiakh pri energii 7-8 Bev. [n.p. n.d.] 26 p. (MIRA 16:10)

(Mesons) (Hyperons)

L 15462-63 FCS(f)/EWT(m)/BDS AFFTC/ASD

ACCESSION NR: AP3002945 S/0056/63/045/002/0088/0089

AUTHOR(S): Belyakov, V. A.; Veksler, V. I.; Virganov, N. M.; Vrana, I.; Kim Khi Ir; Kirillova-Savina, Ye. N.; Matveyeva, A. A.; Mikhul, A.; Nguyen Dinh Tu; Solov'yev, M. I.; Hofmokl, T.; Cheng Ling-yen 19

TITLE: Antilambda hyperon production by 7-8 GeV negative pions on hydrogen

SOURCE: Zhur. eksper. i teoret. fiz., v. 45, no. 2, 1963, 88-89

TOPIC TAGS: hyperon production, antilambda, negative pion decay, cross section

ABSTRACT: The production and decay of $\bar{\Lambda}$ hyperons by 7--8 BeV negative pions are reported, on the basis of 42 V^0 events in which the momentum of the negative particle from the decay was greater than the momentum of the positive particle and the transverse momentum of the decay products was less than or equal to 100 MeV. Selection of the $\bar{\Lambda}$ hyperons was by kenemativ criteria, measurement of ionization, and determination of the δ-electron energy. The cross section for the production of Λ hyperons is found not to differ much from the cross section of NN production, or about 3 μb. Orig. art. has 1 figure and 1 table.

Card 1/2

L 15462-63

ACCESSION NR: AP3005248

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh reaktsiy (Joint Institute of Nuclear Research)

SUBMITTED: 13Mar63	DATE ACQ: 06Sep63	ENCL: 00
SUB CODE: PH	NO REF SOV: 003	OTHER: 002

Card 2/2

ZAJIC, Jiri, inz. CSc.; VRANA, Jan, inz.; POKORNY, Jan, inz. CSc.

Bleaching of refined cotton seed fat acids. Prum potravin 15 no.9:475-477 S '64.

1. Higher School of Chemical Technology, Prague.

VRANA, J.

Intercommunication service in the Stavmontaze National Enterprise in Brno. p. 252.
(POZEMNI STAVBY, vol. 2, no. 8, Aug. 1954, Praha)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.

VRANA, J.

"Through better technical equipment to fulfillment of the Plan in the South Moravian Lignite Mines."
Uhli, Praha, Vol 3, No 4, Apr. 1953, p. 125

SO: Eastern European Accessions List, Vol 3, No 10, Oct 1954, Lib. of Congress

VRANA, J.

"Five Hundred Years of Czech Glass", P. 2, (TECHNICKE NOVINY, Vol. 2, No. 10, May 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

VRANA, J.

Interesting stories about glasses. p. 62.

(Jemna Mechanika A Optika. Vol. 2, no. 2, Apr. 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

BICISTE, Vl.; VRANA, J.

Second European Symposium on Vacuum. Sklar a keramik 13 no.9:
250-251 S'63.

POKORNY, Jan, inz. CSc.; VRANA, Jan, inz.; ZAJIC, Jiri, inz. CSc.

Bleeching purified cotton seed fat acids. Pt.2. Prum potravin 16 no.1:43-44 Ja '65.

1. Higher School of Chemical Technology, Prague. Submitted June 6, 1964.

VRANA, J.; JORDA, V.; GIKALOVOVA, I.; VYKYDAL, M.

Problems and differential diagnosis of subcutaneous nodules in joint diseases. Rysiat. vestn. 43 no.2:105-107 Mr '65

1. III. interni klinika (prednosta - prof. dr. V. Pelikan) a dermatologicka klinika prednosta - prof. dr. G.Lejhanec) lekarske fakulty Palackeho University v Olomouci.

Internal Medicine

CZECHOSLOVAKIA UDC 616-003.826:616.153.922.01

VRANA, J.; VYKYDAL, M.; PEGRIMOVA, E.; 3rd Internal Clinic, Medical Faculty, Palacky University (III. Interni Klinika Lek. Fak. PU), Olomouc, Chief (Prednosta) Prof Dr V. PELIKAN.

"Hypercholesterolemic Xanthomatosis."

Prague, Casopis Lekaru Ceskych, Vol 105, No 49-50, 9 Dec 66, pp 1383 - 1387

Abstract /Authors' English summary modified/: Observations made by the authors during treatment of 3 patients are discussed. Two male patients suffered at the same time from an ischemic heart disease, the third patient, a woman,did not have this complication. None of the patients showed high cholesterol and blood lipid levels; this level could be controlled by diet and by drugs. Relationship between hypercholesterolemic xanthomatosis and essential hyperlipemia is discussed. 7 Figures, 3 Tables, 10 Western, 9 Czech references.

1/1

CZECHOSLOVAKIA/Nuclear Physics - Cosmics Rays. C.

Abs Jour : Ref Zhur - Fizika, No 7, 1959, 15038

Author : Pernegr, Jaroslov; Petrzilka, Vaclav; Vrana, Jiri

Inst : Institute of Physics, Czechoslovak Academy of Sciences, Charles University, Prague, Czechoslovakia

Title : An Interaction of Nucleons at an Energy Between 10^{14} and 10^{15} ev/nucleon

Orig Pub : Chekhosl. fiz. Zh., 1958, 8, No 2, 137-147, 268a

Abstract : In an emulsion chamber, exposed at an altitude of 33 km, an interaction of the type $(0 + 14)\alpha$ was observed at an energy $(3.3 \pm^{5.3}_{2.2}) \times 10^{14}$ ev/nucleon. Along the axis of the "jet" there was observed a second interaction with very small multiplicity ($n_s = 3$ or 4), probably caused by another nucleon of a primary α particle.

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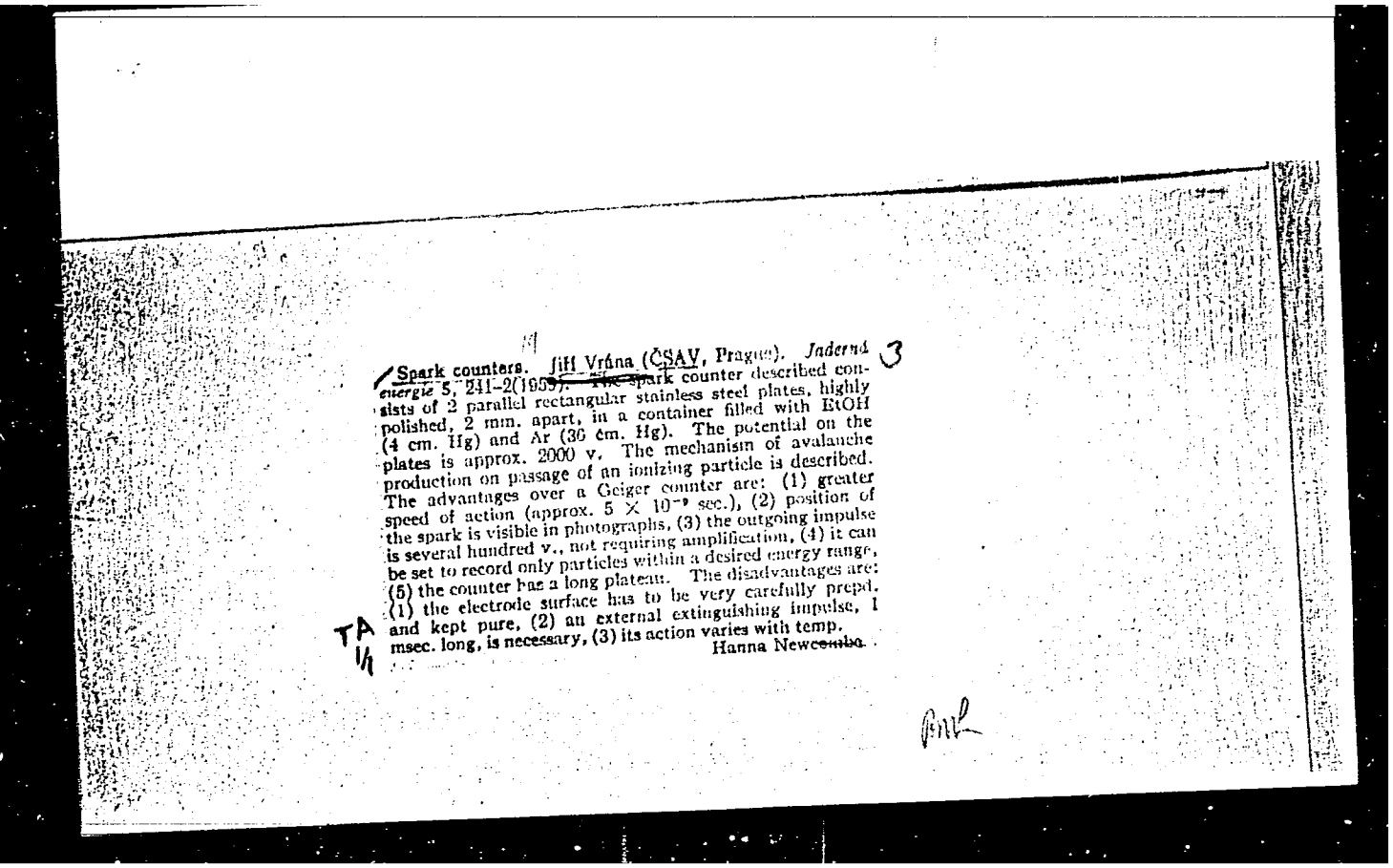

Spark counters. Jiří Vrána (ČSAV, Prague). *Jaderná energie* 5, 241–2(1959). The spark counter described consists of 2 parallel rectangular stainless steel plates, highly polished, 2 mm. apart, in a container filled with EtOH (4 cm. Hg) and Ar (36 cm. Hg). The potential on the plates is approx. 2000 v. The mechanism of avalanche production on passage of an ionizing particle is described. The advantages over a Geiger counter are: (1) greater speed of action (approx. 5×10^{-9} sec.), (2) position of the spark is visible in photographs, (3) the outgoing impulse is several hundred v., not requiring amplification, (4) it can be set to record only particles within a desired energy range, (5) the counter has a long plateau. The disadvantages are: (1) the electrode surface has to be very carefully prepd. and kept pure, (2) an external extinguishing impulse, 1 msec. long, is necessary, (3) its action varies with temp.

Hanna Newcombe

TA 1h

8(5) CZECH/14-59-6-13/60

AUTHORS: Vrana, J., and Závěrka, O.

TITLE: A Simple Saw Tooth Generator

PERIODICAL: Sdělovací Technika, 1959, Nr 6, pp 215-217 (Czechoslovakia)

ABSTRACT: This is a description of a simple generator of saw tooth waves whose output voltage does not depend on the wave frequency. Saw tooth voltage is obtained by a graduel charging of the capacity over a high resistance and an sudden discharging over a low resistance. For the discharging, a diode is used, composed of a grid and a triode cathode. In figure 1 the anode characteristics of a system of double triode 6CC31 are shown, from which the value of the resistance of the diode generated between the grid and the triode's cathode may be obtained. This resistance is usually 200-300 Ω. In figure 5, the connection system is presented of the saw tooth generator. The triode (1/2 6CC31) has the characteristics mentioned in graph Nr 1, V_2 is a terminal electron 6L31. Originally, this

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CZECH/14-59-6-13/60

A Simple Saw Tooth Generator

generator was drafted for frequencies up to 20 Kc/s but it can operate with much higher frequencies as well. The resistance must be of several hundreds Ohms even for the highest frequencies. At a low resistance, the generator stops oscillating. It is possible to simplify still more this generator by using modern combined electrons as for instance ECF82. A synchronization of the generator is easily achieved by bringing synchronizing voltage on the first grid of the electron V_2. The generator can also be used in oscilloscopes. A peak output voltage of 50 V can be achieved, it may be lowered by using an amplifier. The output voltage of the generator is asymmetrical. In a supplement to this article, the author presents the formulae for calculating the time of the active and back motion of the apparatus. There are 3 photographs, 1 graph, 1 circuit diagram and 4 references, 3 of which are Czech and 1 American.

Card 2/2

L 30911-66 EWT(1)/T IJP(c)

ACC NR: AP6022989 SOURCE CODE: CZ/0030/65/000/011/0362/0362

62
B

AUTHOR: Vrana, J. (Certified technician)

ORG: none

TITLE: Influence of a cementing layer of Canada balsam on the quality of the optical image

SOURCE: Jemna mechanika a optika, no. 11, 1965, 362

TOPIC TAGS: optic image, optic lens, fluid pressure, material deformation

ABSTRACT: The article discusses the phenomenon of cemented lens deformation caused by improper pressing of the threaded ring in the objective sleeve, with the Canada balsam layer playing there the role of pressure liquid. Tests for verifying the influence of this effect on the deterioration of the image quality are described. Orig. art. has: 4 figures and 1 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 20, 17 / SUBM DATE: none

Card 1/1 UDC

0915 1074

ZWINGER, A., (Praha-Podoli), nabr. K. Marxe 137); VRANA, J.

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Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62274

Author: Vrana, Josef

Institution: None

Title: Precision Grinding and Polishing of Glass

Original Periodical: Presne brouseni a lesteni skla, Sklar a keramik, 1956, 6, No 2, 30-33; Czech

Abstract: It is proposed to treat artificial gems by the method used in the treatment of optical glass (for example lead glass) which should be made more precise on the basis of production investigations, while the auxiliary processes can be left partially unchanged. The materials used should be of the highest quality. Quality control of production is effected by the optical method. Bibliography, 20 titles.

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